

Docket No. AT9-99-302

CLAIMS:

What is claimed:

- 5 1. A method for communicating on a network between a first data processing system and a second data processing system, the method comprising the computer-implemented steps of:
 - transmitting data packets on the network from the
 - 10 first data processing system to the second data processing system using a virtual private network (VPN);
 - and
 - automatically reconfiguring the VPN to use alternate addresses on the network for the first data processing
 - 15 system and the second data processing system.
2. The method of claim 1 wherein the step of transmitting data packets on the network further comprises:
 - 20 transmitting data packets through a first VPN tunnel between the first data processing system and the second data processing system, wherein a first end of the first VPN tunnel is terminated by the first data processing system using a first network address and a second end of
 - 25 the first VPN tunnel is terminated by the second data processing system using a second network address.
3. The method of claim 2 wherein the step of automatically reconfiguring the VPN further comprises:
 - 30 automatically determining, in accordance with a predetermined algorithm, a third network address for the

Docket No. AT9-99-302

first data processing system and a fourth network address for the second data processing system; and

5 automatically assigning the third network address to the first data processing system and the fourth network address to the second data processing system.

4. The method of claim 3 wherein the predetermined algorithm is a function which maps a network address to another network address.

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5. The method of claim 4 wherein the first network address and the third network address are members of a first predetermined set of network addresses.

15 6. The method of claim 3 further comprising:
transmitting data packets through a second VPN tunnel between the first data processing system and the second data processing system, wherein a first end of the second VPN tunnel is terminated by the first data
20 processing system using the third network address and a second end of the second VPN tunnel is terminated by the second data processing system using the fourth network address.

25 7. The method of claim 1 wherein the data packets are transmitted using Internet Protocol (IP).

8. The method of claim 1 wherein the network comprises the Internet.

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9. The method of claim 1 wherein the first data

Docket No. AT9-99-302

processing system is a secure gateway for connecting the network to another network.

10. A distributed data processing system for
5 communicating on a network, the distributed data processing system comprising:

transmitting means for transmitting data packets on the network from a first data processing system to a second data processing system using a virtual private
10 network (VPN); and

reconfiguring means for automatically reconfiguring the VPN to use alternate addresses on the network for the first data processing system and the second data processing system.

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11. The distributed data processing system of claim 10 wherein the transmitting means further comprises:

first sending means for sending data packets through a first VPN tunnel between the first data processing
20 system and the second data processing system, wherein a first end of the first VPN tunnel is terminated by the first data processing system using a first network address and a second end of the first VPN tunnel is terminated by the second data processing system using a
25 second network address.

12. The distributed data processing system of claim 11 wherein the reconfiguring means further comprises:

determining means for automatically determining, in
30 accordance with a predetermined algorithm, a third network address for the first data processing system and

Docket No. AT9-99-302

a fourth network address for the second data processing system; and

5 assigning means for automatically assigning the third network address to the first data processing system and the fourth network address to the second data processing system.

13. The distributed data processing system of claim 12 wherein the predetermined algorithm is a function which
10 maps a network address to another network address.

14. The distributed data processing system of claim 13 wherein the first network address and the third network address are members of a first predetermined set of
15 network addresses.

15. The distributed data processing system of claim 12 wherein the transmitting means further comprises:

20 second sending means for sending data packets through a second VPN tunnel between the first data processing system and the second data processing system, wherein a first end of the second VPN tunnel is terminated by the first data processing system using the third network address and a second end of the second VPN
25 tunnel is terminated by the second data processing system using the fourth network address.

16. The distributed data processing system of claim 10 wherein the data packets are transmitted using Internet
30 Protocol (IP).

Docket No. AT9-99-302

17. The distributed data processing system of claim 10 wherein the network comprises the Internet.

18. The distributed data processing system of claim 10 wherein the first data processing system is a secure gateway for connecting the network to another network.

19. A computer program product on a computer-readable medium for use in a data processing system for communicating on a network, the computer program product comprising:

instructions for transmitting data packets on the network from a first data processing system to a second data processing system using a virtual private network (VPN); and

instructions for automatically reconfiguring the VPN to use alternate addresses on the network for the first data processing system and the second data processing system.

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20. The distributed data processing system of claim 19 wherein the first data processing system is a secure gateway for connecting the network to the Internet.